

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (original) A method of reducing a microbial population on poultry during processing comprising:
applying to the poultry during processing a mixed peroxycarboxylic acid antimicrobial composition in an amount and time sufficient to reduce the microbial population.
2. (original) The method of claim 1 wherein the poultry being processed comprises chicken, turkey, ostrich, game hen, squab, guinea fowl, pheasant, duck, goose, emu, or a combination thereof.
3. (original) The method of claim 1, comprising applying the mixed peroxycarboxylic acid composition by submersing the poultry.
4. (original) The method of claim 3, comprising applying the mixed peroxycarboxylic acid composition by submersion scalding, by submersion chilling, by hydro-cooling or chilling, tumble immersion, or by a combination thereof.
5. (original) The method of claim 3, comprising applying the mixed peroxycarboxylic acid composition for a duration and at a concentration selected to yield visually imperceptible darkening of subcutaneous bruises, pooled blood, or a combination thereof.
6. (original) The method of claim 1, comprising applying the mixed peroxycarboxylic acid composition by rinsing or spraying the poultry.
7. (original) The method of claim 6, comprising applying the mixed peroxycarboxylic acid composition with a de-feathering picker, by inside-outside bird washing, by dress rinsing, by spray rinsing, or a combination thereof.

8. (original) The method of claim 1, comprising applying the mixed peroxycarboxylic acid composition to a whole poultry carcass.

9. (original) The method of claim 8, comprising applying the mixed peroxycarboxylic acid composition to a poultry carcass that has been subjected to stunning, bleeding, scalding, picking, singeing, or a combination thereof.

10-32. (cancelled)

33. (original) A method of recycling water previously applied to poultry, the method comprising:

recovering a mixed peroxycarboxylic acid antimicrobial composition previously applied to poultry; and

adding to the recovered composition a sufficient amount of a mixture of peroxycarboxylic acids to yield a recycled mixed peroxycarboxylic acid antimicrobial composition.

34. (original) The method of claim 33, further comprising applying the recycled composition to poultry during processing.

35. (original) The method of claim 33, wherein the mixture of peroxycarboxylic acids comprises peroxyacetic acid and peroxyoctanoic acid.

36. (original) The method of claim 35, wherein the mixture of peroxycarboxylic acids comprises about 30 to about 60 weight-% acetic acid, about 1 to about 15 weight-% octanoic acid, about 2 to about 12 weight-% hydrogen peroxide, about 6 to about 16 weight-% peroxyacetic acid, and about 0.1 to about 5 weight-% peroxyoctanoic acid, and about 0.1 to about 2 weight-% chelating agent.

37. (original) The method of claim 33, wherein the recycled mixed peroxy-carboxylic acid antimicrobial composition comprises:

at least about 2 ppm of one or more mono- or di-peroxy-carboxylic acids having up to 6 carbon atoms; and

at least 0.5 ppm of one or more carboxylic acids having up to 12 carbon atoms.

38. (original) The method of claim 37, wherein the recycled mixed peroxy-carboxylic acid composition comprises one or more peroxy-carboxylic acids having from 2 to 6 carbon atoms and a peroxy-carboxylic acid having from 7 to 12 carbon atoms.

39. (original) The method of claim 33, wherein the composition was previously applied by a carcass wash or rinse.

40. (original) The method of claim 33, wherein the composition was previously applied by an inside-outside bird wash.

41. (original) An antimicrobial concentrate composition comprising:
a combination of peroxyacetic acid and peroxyoctanoic acid effective for reducing the microbial burden on a surface of poultry;

the combination comprising about 30 to about 60 weight-% acetic acid, about 1 to about 15 weight-% octanoic acid, about 2 to about 12 weight-% hydrogen peroxide, about 6 to about 16 weight-% peroxyacetic acid, and about 0.1 to about 5 weight-% peroxyoctanoic acid, and about 0.1 to about 2 weight-% chelating agent.

42. (original) The antimicrobial concentrate composition of claim 41, further comprising stabilizing agent, wetting agent, hydrotrope, thickener, foaming agent, acidifier, pigment, dye, surfactant, or a combination thereof.

43. (original) The antimicrobial concentrate composition of claim 42, comprising about 40 weight-% acetic acid, about 3 weight-% octanoic acid, about 6 weight-% hydrogen

peroxide, about 10 weight-% peroxyacetic acid, and about 0.8 weight-% peroxyoctanoic acid, and about 0.6 weight-% chelating agent.

44-50. (cancelled)